GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:3544
ANSWERED ON:11.12.2001
MITIGATE TECHNOLOGY FOR HARDSHIP FROM NATURAL DISASTERS
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Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the Government have developed some pre/post-disaster technology to mitigate hardship from natural disasters;

(b) if so, the details thereof; and

(c) the date since when these technologies have been developed?

Answer

MINISTER OF STATE FOR SCIENCE & TECHNOLOGY (SHRI BACHI SINGH RAWAT)

(a) to (c): A statement is attached.

STATEMENT AS REFERRED IN REPLY TO PARTS (a) TO (c) OF LOKSABHA UNSTARRED QUESTION NO. 3544 DUE REPLY ON 11.12.2001 REGARDING MITIGATE TECHNOLOGY FOR HARDSHIP FROM NATURAL DISASTERS

Consistent efforts are being made to develop scientific and technological capacity, introduce new systems and upgrade the existing ones to improve our understanding of natural disasters to enable greater preparedness and better planning of the consequences of such disasters. As an example, early warning systems for cyclones have already been developed and are in use. At present six cyclone warning systems are operational at Kolkata, Bhubneshwar, Visakhapatnam, Chennai, Mumbai and Ahmedabad.These systems are proven and reliable for cyclone warning and data dissemination.

High-resolution numerical weather prediction models have been developed and implemented by India Meteorological Department (IMD).These models are capable to forecast short range (up to 3 days in advance) weather and cyclone tracks. Based on regional and global land-ocean-atmospheric parameters, a long range forecast model was also introduced in 1998.

Presently, there is no proven technology available any where in the world to forewarn about earthquakes. However, research has been initiated to develop early warning systems for earthquakes. Efforts have also been initiated for microzonation of urban cities falling under seismic zones IV&V for better planning and preparedness through risk evaluation. Bureau of Indian Standards (BIS) have formulated design criteria and code of practice, which covers safety aspects for all types of structures/buildings against natural disasters like fire, cyclone, earthquakes and flood etc. The risk of destruction from future earthquakes can be reduced, if these codes are properly followed while constructing the buildings.

In addition, Building Material and Technology Promotion council (BMTPC), Ministry of Urban Development & Poverty Alleviation has published a vulnerability atlas of India in 1997. This atlas can be used as pro-active tool for improving the quality and resistance of existing buildings though retrofitting etc. The atlas also provides guidelines for post-disaster reconstruction of buildings. Guidelines for improving earthquake and wind/cyclone resistance of housing have also been prepared by BMTPC.These guidelines provide appropriate technical information for use by architects, engineers and builders etc.